



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/552,603 | 10/07/2005 | Karl Bechtold | 2003CH109 | 6331 |

25255 7590 10/25/2007
CLARIANT CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
4000 MONROE ROAD
CHARLOTTE, NC 28205

| |
|----------|
| EXAMINER |
|----------|

REDDY, KARUNA P

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1796

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

10/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/552,603 | Applicant(s) BECHTOLD, KARL | |
| | Examiner Karuna P. Reddy | Art Unit 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>3/16/2007</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claims filed on 10/7/2005 are made of record. Claims 1-15 are currently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hess et al (US 4, 780, 494) in view of Beilfuss et al (5, 756, 500) and Takei et al (US 6, 444, 320 B1).

Hess et al disclose an aqueous dispersion comprising one or more 2,2,6,6-tetraalkylpiperidines having a melting point of 100⁰C or more; one or more cationic, non-ionic and / or anionic dispersing agents that read on the wetting agent; and an aqueous medium (abstract). The stable aqueous dispersions of 2,2,6,6-tetraalkylpiperidines can be used alone or with further stabilizers for light stabilization of aqueous systems (column 1, lines 5-9). The 2,2,6,6-tetraalkylpiperidines can be ground with a ball mill in water to form a fine dispersion (column 4, line 36-39). The amount of 2,2,6,6-tetraalkylpiperidine compounds in dispersion, which reads on the active substance of present claims, is preferably 5 to 50% (column 5, lines 15-17). The dispersion can be added simply to aqueous systems by stirring into the system (column 5, lines 29-31). Further, there is provided an aqueous lacquer, suitable for use in automotive coatings, comprising an aqueous dispersion of one or more polymeric binders based on crosslinkable acrylic resins, alkyd resins, polyester resins and polyurethane resins, one or more 2,2,6,6-tetraalkylpiperidine compounds having a melting point of 100⁰C or more, one or more dispersing agents and an aqueous medium (column 5, lines 41-50). See example 1, wherein 120 parts of compound 1a is mixed with 10 parts of an addition product of 1-octylphenol and 10 moles of ethylene oxide and reads on the wt% of dispersant. A fine dispersion is obtained in which compound 1a is present in particle size of 1 μ or less (column 6, lines 20-21).

Hess et al is silent with respect to polyglycol as a solubilizer; biocide and its weight percent; oleic acid as flow improver; viscosity of the aqueous dispersion; storage stability of more than 4 weeks; and the method of improving storage stability.

However, Beilfuss et al teach aqueous dispersion containing active ingredients with algicidal or fungicidal effect (abstract) for coatings whose surfaces are frequently attacked by algae or fungi (column 1, lines 6-8). The dispersion can include usual auxiliaries such as high-boiling solubilizers (column 2, lines 62-63). Examples of solubilizers include polypropylene glycol, polyethylene glycol (column 3, lines 14-22) and read on the polyglycol of present claims. In some cases, the solubilizers have a consistency regulating effect and/or act as low temperature stabilizers. The solubilizers can be used in an amount of up to 15 wt%. The stability and handling properties of dispersions containing such dispersion agents and/or solubilizers is surprisingly good even after prolonged storage under very unfavorable temperature and moisture conditions. As a rule, demulsification of the dispersion components is avoided (column 3, lines 24-48). Therefore, it would have been obvious to use polyglycol as a solubilizer and add fungicide to the aqueous dispersion of Hess et al, for the above mentioned advantages.

With respect to oleic acid as a flow improver, Takei et al teach anti-reflective coating compositions (abstract) into which is incorporated a flow promoting agent to increase flowability of the composition. If a flow promoting

agent is utilized, it should be present in the composition, preferably at a level of from about 0 to 10% by weight. Examples of suitable flow promoting agents include oleic acid derivatives (column 4, lines 29-40). Case law holds that the selection of a known material based on its suitability for its intended use supports *prima facie* obviousness. *Sinclair & Carroll Co vs. Interchemical Corp.*, 325 US 327, 65 USPQ 297 (1045).

With respect to viscosity of aqueous dispersion and storage stability of more than 4 weeks, in light of the fact that the composition comprises substantially similar components as that of the present claims, one of ordinary skill in the art would have a reasonable basis to believe that the composition would exhibit similar properties. Since PTO cannot conduct experiments, the burden of proof is shifted to the applicants to establish an unobviousness difference. See *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977).

With respect to wt% of biocide, it is the examiner's position that biocide amount is a result-effective variable (MPEP 2144.5) since the amount used clearly affects the antifungal activity or bacterial infestation. Hence, the choice of a particular amount of biocide (such as the amount in present claims) is a matter of routine experimentation and would have been well within the skill level of, and thus obvious to, one of ordinary skill in the art.

With respect to the order of mixing various components, the composition is substantially similar to that of Hess et al in view of Beilfuss et al and Takei et al, though the sequence of mixing various components differs. Case law holds

that the selection of any order of mixing ingredients is prima facie obvious. See In re Gibson, 39 F.2d 975, 5 USPQ 230 (CCPA 1930).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/552,603
Art Unit: 1796

Page 7

Karuna P Reddy
Examiner
Art Unit 1796

/KR/

/Vasu Jagannathan/
Supervisory Patent Examiner
Technology Center 1700